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8 ( OCT 1966

MEMORANDUM FOR: Director of Security

SUBJECT : ADP Management

REFERENCE : Memorandum dated 31 May 1966  
to [ ] from Deputy  
Director of Security

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### THE PROBLEM

To examine the management reporting system as it exists in the Office of Security and recommend a list of priorities of areas that should be subjected to feasibility studies in order to determine if these areas can and should be automated.

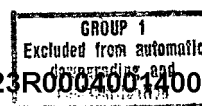
### MANAGEMENT INFORMATION SYSTEMS

1. In general such systems can be described as those means by which the manager obtains the information he believes necessary to make correct decisions so that he most efficiently effectuates his responsibilities.

2. This area has gradually been subjected to the scrutiny of the "hard sciences". Individuals thoroughly trained in mathematics, economics, behavioral sciences, physical sciences, etc., have applied their techniques and the scientific methodology to the quantification of intangibles and the further refinement of the tangible.

3. Operations Research, Automatic Data Processing, Computers, Systems Analysis, etc. are various scientific techniques which have been and are being utilized to present alternative courses of action for management decision.

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4. Although variously described as 60 - 90% common sense and 10 to 40% technical knowledge, the latter demands an intensive knowledge in the particular science or sciences.

5. This development has evolved into a "team approach" whereby the qualifications of the members of the "team" vary according to the elements of the particular problem area.

### AUTOMATIC DATA PROCESSING

1. Automatic Data Processing and the Computer have grown through three generations since approximately 1946. There is now "talk" of a fourth generation. The fourth generation has not been further defined.

2. The basic elements are input, output hardware, computers and software.

3. Computers have been greatly refined and are being further refined to reduce their size and increase their speed and versatility.

4. Input and output hardware are physical items which are utilized in various ways to feed data to the computer and obtain the desired report or "massaged" information.

5. Software is the detailed man analyzed instructions which tell the computer or computers exactly what to do with the data.

### The Third Generation

1. Basically the "Third Generation" has produced a machine that is smaller, faster, more versatile and more efficient than previous machines.

2. To take full advantage of this machine extensive software and improved input, output hardware must be developed.

3. The computer is "here" but the extensive delay has been encountered in the hardware and, especially, the software area.

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### Software

1. Generally these are various detailed methods or languages whereby man communicates with the particular machine to obtain the desired report.
2. Languages are many and the ultimate would be for man to speak directly to the machine and have this extension of the human brain solve man's problems.
3. At the present stages of the industry, this is not possible and hence programs are being written to convert programs from one computer to another. Compilers (a program in itself) are utilized to convert from one computer to another and master programs (monitoring programs, executive programs) are being written to more efficiently utilize the computer's ability to "simultaneously" direct other programs to massage various data inputs and obtain desired outputs. There are even programs to prove the efficiency or inefficiency of all these programs.
4. This entire process is extremely precise. It is heavily oriented to the science of mathematics, engineering and logical analysis.
5. The Third Generation can be described as Real Time, Shared Time, Multi-Programming era. Remote terminals with pictorial or data visual representation have become a reality.
6. This entire industry, to be effective, requires a "heavy" investment in money, time and competent trained personnel.
7. It is believed that the Office of Computer Services has a target date for 1968 for full conversion to Third Generation. In

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addition to the many complexities of converting to the Third Generation, the increasing emphasis in the Agency to automate, utilize the computer and computer oriented systems, will increase the demands for service by the Office of Computer Services.

### THE OFFICE OF SECURITY

1. The Office of Security doesn't have the money to invest in equipment and personnel nor, in the foreseeable future, a computer.
2. The advanced systems now being promulgated in the Automatic Data Processing Field advocate capturing data at its source in formatted machine language which can be transmitted by secure high speed data transmission lines direct to a computer or series of computers. By sophisticated programs this data is obtained in the format desired by the Manager. In conjunction with the statistical data, systems either now exist or will soon be in existence which will produce hard copy of either the manipulated statistical report or the individual report that may be required, e. g., the hard copy of an individual investigative report.
3. By extensive programming, the appropriate equipment and a direct tie in with a computer or computers, it is conceivable that in the future various magnetic storage devices, e. g., data cells, fastan drums, etc., will be utilized to store programs and data (even individual files) which will produce the necessary printout by the utilization of Third Generation Equipment embodying the principle of random or direct access.
4. However, as stated, this would be expensive in time, money and trained competent personnel.
5. It is an important consideration that the Automatic Data

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Processing Field is rapidly expanding to such an extent that practically anything planned today will be obsolete when installed.

6. Another axiom is to insure that the present system (generally manual) should be run in parallel, at times, for 2 or 3 years until the new Automatic Data Processing System (computer oriented) has been proved effective and totally "debugged".

#### Recommended Present Approach to the Office of Security Problem

1. Sophisticated Systems are not considered since they demand a heavy investment of time, money and competent trained personnel.
2. Paper tape has inherent disadvantages but can be utilized under appropriate circumstances, e. g., form letters, inventory feed-back, etc.
3. The present applications are based on punched cards.

#### Punched Cards

1. Punched Cards came into existence in approximately 1890 and have continued to gain in universal acceptance. Even with new developments, e. g., data transferred directly to magnetic tape and by high speed to a computer, it will be economically feasible to continue their use for certain applications for some time to come.
2. Punched Cards are confining and restrictive. Generally eighty columns are utilized and a great amount of the information is "coded" to more fully utilize the 80 columns.

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3. Punched Cards further represent an ultimate storage problem but do serve the purpose of running a visual manual parallel operation while capturing data in machine language so that by the appropriate set of programs and equipment the data can either be transmitted from point to point or manipulated to produce the required reports.

4. The data in machine language can be transmitted from the cards to magnetic tape for storage and high speed communication with a computer or computers.

#### Solution Considering Current Realities

1. For the time being, considering the problems of the Office of Computer Services, the lack of competent trained personnel, the lack of money, the dynamic nature of the Automatic Data Processing Industry, the necessity for running parallel operations, etc., it appears that the Office of Security can but basically approach the automation problem by utilization of the punched card.

2. The further element must be considered of the possible retraining of selected current clerical personnel in punched card operations. This may present a further psychological problem of such selection and training being accepted by these clerical personnel.

#### Areas of the Security Office Considered for Feasibility Studies Source Materials and Assumptions

1. Initial analysis will be confined to the Monthly Statistical Report for the Director of Security, the Monthly Statistical Report from the Director of Security to the Deputy Director for Support and the Study from the Director of Security to the Special Assistant to the Deputy Director for Support as to ADP Requirements and Projections.

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2. It is believed advisable to defer, for the present, the applications that are currently in operation or in the process of being discussed with the Office of Computer Services, e. g., the Overt Case Control, the Special Clearance Center, the SANCA and OANC, etc.

The Offices, Staff and Directorates to be considered are as follows:

I. The Office of the Director of Security, the Offices of the various Deputy Directors and the Security Policy and Executive Staff.

1. The subject matter of these offices appears unique and more subject to general management principles rather than automation through punched cards.

II. Administration and Training Staff

1. It is believed that the necessary data charts and figures as to Office of Security Funds and Personnel Strength are presently being obtained from other sources in an accurate and timely manner.

2. A desire has been expressed by this office for consideration of automation in the following areas:

a. Qualifications Register of Security Career Service Personnel for use by the Career Service Board and its supporting committees.

b. Central listing of personnel on standby travel status including name; date of most recent medical qualifications; passport number, type, and date of issuance and number of any ID cards which have been issued.

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- c. Listing of contract employees and confidential correspondents and contract stenographers.
- d. Area assignment preference report to indicate individuals who have requested specific overseas and domestic assignments.
- e. A capability to respond rapidly to day to day requirements for information which has already been recorded in the areas of personnel and training.

### III. Security Research Staff

1. This Staff, per se, receives information from many sources. This should be a consideration in present and future applications of data processing within the Office of Security; however, considering the complexities and responsibilities of the Staff, it is initially believed that this Staff presents a unique problem and requires a separate system adjusted to the peculiar nature of its responsibilities, e.g., the quantification in statistical form of a [REDACTED]

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### IV. Investigative and Operational Support Directorate.

1. The Investigations and Operational Support Divisions have expressed a desire to have the following areas considered:

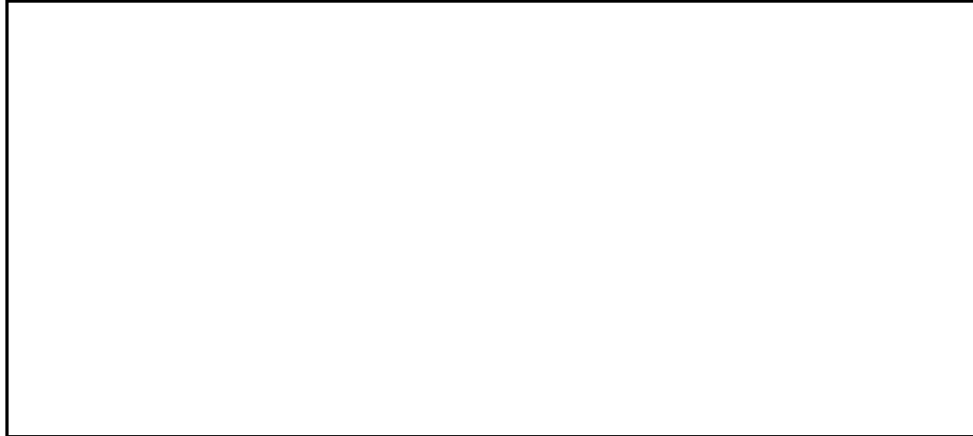
- a. Case Processing - Control of the progress of all cases (including [REDACTED] from the time of receipt to the time of closing by Headquarters. This should produce the control and the statistics that are presently being handled and produced manually. This could logically, in the future, extend to the Field Offices.

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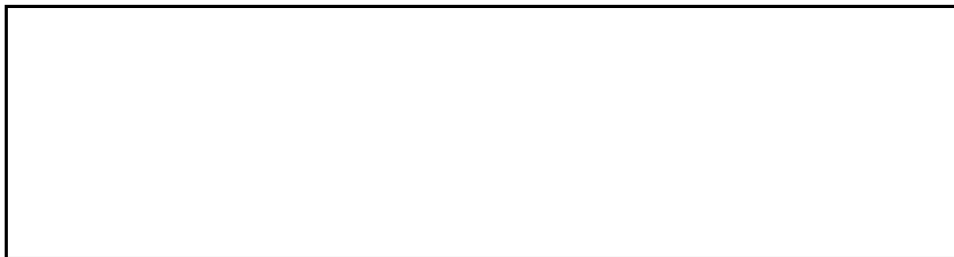
V. Personnel Security Directorate

1. The Personnel Security Division has expressed a desire to have the following areas considered.

a. Types of full field investigation cases, other than T/O, completed during the month.

b. The Reinvestigation Program.

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The belief has been expressed that due to the wide range of functions represented in the Employee Support Actions, Applicant Review Panel Actions and the Employee Activity Branch Actions that it is not feasible to contemplate automatic data processing in these areas.

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2. Interrogation Research Division has expressed a desire to have the following areas considered:

- a. Conversion of 3 x 5 card index to punched cards and a related system whereby recurring statistical reports used for management and budget purposes could be prepared.
- b. Current Research Programs or portions thereof, requiring out of house assistance, in the future, may be done inside the Agency. At the present time, it is not believed advisable to disturb these programs.

3. Security Records and Communications Division

- a. This Division now controls various Automatic Data Processing systems that are either running in parallel with the manual operations or in the foreseeable future will be. It is not believed advisable to disturb this situation. Top management support for current operations, when needed, is essential.
- b. The internal manual reporting system has been constantly refined and apparently is efficient. Future technological advances can materially affect this Division.

#### VI. Physical, Technical and Overseas Directorate

1. Industrial Security Support Division

- a. The Industrial Security Support Division has developed a management information program for maintaining the necessary cognizance of the security of agency contractual activities. This program has been initially reviewed and coordinated with SP&ES and the DDS/Support Systems Staff.

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The categories of input and output for the ISSD program are attached. Currently, the DDS Support Systems Staff is proceeding to design the ISSD program to be compatible with that of the Office of Logistics.

a. A formal presentation of the ISSD program will be submitted by them for proper referral to the DDS within 3 weeks. This program has been designed to be implemented without cost or additional people to the Office of Security.

2. Physical Security Division has expressed a desire to have the following areas considered:

- a. A machine listing of all Agency identification held by an individual, whether in true name or in pseudo. This would include the Agency badge, firearms permit, credentials, special passes, and related items.
- b. An alphabetized list of all char force personnel who are not cleared for non-escorted access to Agency installations to show current status of clearance and the areas in which an individual can work.
- c. An alphabetized list of all custodians of all alarmed secure or vault areas in the Washington Area.
- d. The data needs of the Safety Staff relating to injuries.
- e. The badge processing in respect to all categories of personnel, i. e., visitors, foreign nationals, agency employees, etc.
- f. Time scheduling for the changing of safe combinations (not the problem of the actual combinations).

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g. Domestic and Foreign Physical Surveys. This area may be better managed manually rather than by Automatic Data Processing.

h. "Security Matters Handled" over 5,000 actions, in Section II of the monthly statistical report require further clarification before any analysis can be attempted. This is actually the entire NSO log activities for the entire month.

3. Technical Division has expressed a desire to have the following areas considered.

a. Monthly statistical report to retrieve such information as number of rooms examined in a stated period, miles travelled, bases and stations visited, telephones examined, etc.

b. An individual station report that would provide a basis for analyzing a station, commo area, or safe house over a 5-10 year period re number of "finds", suspicious incidents, frequency of checks and related information.

VII. Priorities of Feasibility Studies based on their relative importance by OS components are as follows:



2. Interrogation Research Division

a. Conversion of 3 x 5 card index to punched cards

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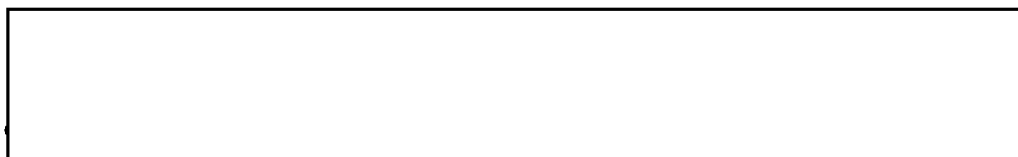
b. Future "in house" support of the Research Programs.

3. Personnel Security Division

a. Types of full field investigation cases, other than T/O, completed during the month.

b. The Reinvestigation Program.

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e. An examination of the functions of the Employee Support Actions, Applicant Review Panel Actions and the Employee Activity Branch Actions to determine if any automation is possible.

4. Physical Security Division

a. The badge processing in respect to all categories of personnel, i. e., visitors, foreign nationals, agency employees, etc.

b. A machine listing of all Agency identification held by an individual, whether in true name or in psuedo. This would include Agency badge, firearms permit, credentials, special passes, and related items.

c. An alphabetized list of all char force personnel who are not cleared for non-escorted access to Agency installations to show current status of clearance and the areas in which

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an individual can work.

- d. An alphabetized list of all custodians of all alarmed secure or vault areas in the Washington area.
- e. Time scheduling for the changing of safe combinations (not the problem of the actual combinations).
- f. The data needs of the Safety Staff relating to injuries.
- g. Analysis of the NSO functions to determine if ADP could be of assistance.
- h. Domestic and Foreign Physical Surveys to verify that manual processing is more suitable than ADP.

5. Administration and Training Staff

- a. Qualifications Register of Security Career Service Personnel for use by the Career Service Board and its supporting committees.
- b. Central listing of personnel on standby travel status including name; date of most recent medical qualifications; passport number, type and date of issuance and number of any ID cards which have been issued.
- c. Area assignment preference report to indicate individuals who have requested specific overseas and domestic assignments.
- d. Listing of contract employees and confidential correspondents and contract stenographers.

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e. A capability to respond rapidly to day to day requirements for information which has already been recorded in the areas of personnel and training.

6. Technical Division

a. Monthly Statistical Report to retrieve such information as number of rooms examined in a stated period, miles travelled, bases and stations visited, telephones examined, etc.

b. An individual station report that would provide a basis for analyzing a station, commo area, or safe house over a 5-10 year period re number of "finds", suspicious incidents, etc.

7. Security Research Staff

a. Contribution to this Staff should be considered in the feasibility studies of any of the other Offices, Staffs and Directorates of the Office of Security.

VIII. Priorities for OS as a whole, without regard to component structures, are as follows:

1. Case processing in IOS.
2. Conversion of 3 x 5 card index of the Interrogation Research Division to punched cards.
3. The Reinvestigation Program.
4. Types of full field investigation cases, other than T/O, completed during the month.

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5. The classified procurement and related cases of interest to the Security Staff, Office of Logistics.

6.

7. The badge processing in respect to all categories of personnel, i. e., visitors, foreign nationals, agency employees, etc.

8. A machine listing of all Agency identification held by an individual, whether in true name or in psuedo. This would include Agency badge, firearms, permit, credentials, special passes, and related items.

9. An alphabetized list of all char personnel who are not cleared for non-escorted access to Agency installations to show current status of clearance and the areas in which an individual can work.

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10.

11. An alphabetized list of all custodians of all alarmed secure or vault areas in the Washington area.

12. Time scheduling for the changing of safe combinations (not the problem of the actual combinations).

13. The data needs of the Safety Staff relating to injuries.

14. Credentials and Cover.

15. Covert Sites.

16. Qualifications Register of Security Career Service Personnel for use by the Career Service Board and its supporting committees.

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17. Central listing of personnel on standby travel status including name; date of most recent medical qualifications; passport number, type and date of issuance and number of any ID cards which have been issued.
18. Area assignment preference report to indicate individuals who have requested specific overseas and domestic assignments.
19. Listing of contract employees and confidential correspondents and contract stenographers.
20. A capability to respond rapidly to day to day requirements for information which has already been recorded in the areas of personnel and training.
21. Monthly Statistical Report to retrieve such information as number of rooms examined in a stated period, miles travelled, bases and stations visited, telephones examined, etc.
22. An individual station report that would provide a basis for analyzing a station, commo area, or safe house over a 5-10 year period re number of "finds", suspicious incidents, etc.
23. An examination of the functions of the Employee Support Actions, Applicant Review Panel Actions and the Employee Activity Branch Actions to determine if any automation is possible.
24. Analysis of the NSO functions to determine if ADP could be of assistance.
25. Domestic and Foreign Physical Surveys to verify that manual processing is more suitable than ADP.

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26. Future "in house" support of the Research Programs of the Interrogation Research Division.

27. Special study of the Security Research Staff.

RECOMMENDATION:

That the substance of this report and the schedule of priorities in this report be approved for planning and implementation purposes.

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Attachments: 2

APPROVED:

Director of Security

6 Dec 1966

Date

An excellent job!

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Attachments

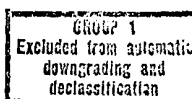
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**SECRET**DATA (Input)

- |  |   |
|--|---|
| 1. Date and Classification of Print-out        | 18. State Where Work is Being Conducted             |
| 2. Contract Number                             | 19. Administrative Address                          |
| 3. Task Order Number                           | 20. Description of Communication Channels           |
| 4. Work Order Number                           | 21. Type and Purpose of Contract                    |
| 5. Contract Category                           | 22. Negotiation Date                                |
| 6. Association Classification                  | 23. Beginning Work Date                             |
| 7. Work Classification                         | 24. Contract Termination Date                       |
| 8. Sensitivity Level (Security System)         | 25. Completion Work Date                            |
| 9. Project Name                                | 26. Contract Completion Date                        |
| 10. Initiating Office                          | 27. Contract Security Completion Date               |
| 11. Technical Monitor                          | 28. Cost  |
| 12. Agency Resident Security Officer           | 29. Security Cost                                   |
| 13. Contracting Office                         | 30. Cover Arrangement                               |
| 14. Contractor Name                            | 31. Contractor Security Officer in Charge           |
| 15. Type of Area Where Work is Being Conducted | 32. Key Contacts                                    |
| 16. Address Where Work is Being Conducted      | 33. Persons Utilized on this Contract               |
| 17. City Where Work is Being Conducted         | 34. Total Cleared Persons Utilized on this Contract |

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|---|--------------------------------------|
| 35. Total Uncleared Persons Utilized on this Contract | 37. Date of Next Security Inspection |
| 36. Security Inspection Record                        | 38. Security Violation Resume        |

INFORMATION REQUIREMENTS (Output)

- |  |   |
|--|---|
| 1. Constants   | 10. List and Total of Cleared Persons Utilized on a Specific Contract                         |
| 2. List of all Contracts Initiated by a Specific Operating Office                | 10a List and Total of Uncleared Persons Utilized on a Specific Contract                       |
| 3. List of all Contracts with a Specific Contractor                              | 11. List of Cleared Persons Utilized on more than XX Contracts                                |
| 4. List of Contractors with more than XX Contracts with the Agency               | 11a List of Uncleared Persons Utilized on more than XX Contracts                              |
| 5. List of "Association Classified" Only Contracts by Contractor                 | 12. List by Contract and Total of Cleared Persons Utilized by a Specific Contractor           |
| 6. List of "Work Classified" Only Contracts by Contractor                        | 12a List by Contract and Total of Uncleared Persons Utilized by a Specific Contractor         |
| 7. List of "Work Only" and "Association Only" Classified Contracts by Contractor | 13. List of Key Contacts Utilized on more than XX Contracts                                   |
| 8. List of Work and Association Classified Contracts by Contractor               | 14. List of Contractor Security Officers in Charge for a Contractor and the Related Contracts |
| 9. List of Work and Association Unclassified Contracts by Contractor             |   |

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|--|--|
| 15. List of Contracts by Security Code   | 21. Total of Security Costs by Contractor  |
| 16. List of Contractors by Coded Purpose of Contract                             | 22. List of Contracts with Total Security Costs Greater than XX Per Cent of Total Costs        |
| 17. List of all Contractors due Inspection in a Specific Month by Contract       | 23. List of All Contracts under a Specific Cover Arrangement                                   |
| 18. List of Contracts with Work Completion Scheduled for Certain Month or Months | 24. List of Contractors Utilizing more than One Type of Cover Arrangement                      |
| 19. List of Contractors that Utilize Agency Cable Facilities                     | 25. List of Contractors that have Contracts Initiated by more than XX Number of Agency Offices |
| 19a List of Contractors that Utilize Agency TWX Facilities                       |  |
| 20. List of Contractors by State and City Where Work is Being Conducted          | 26. List of Security Costs by Contract   |

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Reference

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MEMORANDUM FOR:

31 May 1966

SUBJECT : Management Study

1. As we have discussed previously, we feel that there are many management aspects of the Office which might be the subject of automation. Obviously, there are many opportunities to utilize machine techniques to assist us in our management, but it seems to me that the first thing we have to determine is our management requirements.

2. I feel that your task in this effort can be divided into four parts which will require a separate study. Part A is to identify what we need to properly manage the Office and to list them in order of priority. To do this, we should look at the nature of our responsibilities, determine what reports, etc. we are now using as a management tool and determine what information we need other than that which we are getting at the present time. This seems to be of the first order of business and you should devote your initial efforts toward a staff study along the lines described.

3. The second phase of the study (Part B) should concern itself with a determination of which requirements could be automated and to what extent. The third phase of the report (Part C) would concern itself with those requirements which could be automated and could possibly tie into the common data base now being determined by the Office of the DDS. It may be possible to combine steps B&C into one paper.

4. After we have obtained the above information, we should then isolate those requirements which have the best opportunity for success with a view toward conducting a feasibility study to determine if this is possible. It seems to me that this would be the final step before moving toward the actual automation of functions.

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5. Per our discussion of 27 May, please institute the first phase of this study. We want to identify those things needed by the Director of Security in the management of the Office. This review will dovetail into a review being conducted by the Executive Staff for the [REDACTED] As you are aware, [REDACTED] is soliciting the assistance of each office under the DDS in determining the requirements for an overall DDS automated system. While I am not putting a deadline on this matter because of your involvement in various training courses in ADP, it is felt that this is a matter of sufficient import that it should receive prompt attention.

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Deputy Director of Security

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SENDER WILL CHECK CLASSIFICATION TOP AND BOTTOM			
UNCLASSIFIED	CONFIDENTIAL	SECRET	
CENTRAL INTELLIGENCE AGENCY OFFICIAL ROUTING SLIP			
TO	NAME AND ADDRESS	DATE	INITIALS
1	Director of Security	4/12	JFO
2			
3			
4		6/12	JFK
5	C-EPP		
6			
ACTION		DIRECT REPLY	PREPARE REPLY
APPROVAL		DISPATCH	RECOMMENDATION
COMMENT		FILE	RETURN
CONCURRENCE		INFORMATION	SIGNATURE
<b>Remarks:</b> This paper is dovetailed into the review conducted by the Executive Staff for the [ ] Group by using the finished paper to [ ] as a source material for this paper. The study for [ ] was forwarded on 8 July 1966 as a memorandum for Special Assistant to the Deputy Director for Support as to ADP Requirements and Projections for OS. Such study was written in the "blue sky" mode of reference that, if you could have it, regardless of money, personnel, etc., what would you like. (OVER)			
FOLD HERE TO RETURN TO SENDER			
FROM: NAME, ADDRESS AND PHONE NO.			DATE
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The current paper has a different approach in that from a management information point of view, confining the analysis to Hdqs., considering the lack of money and competent trained personnel, and after feasibility studies, what areas may lend themselves to automation by punched cards should be further identified as being practical rather than the "blue sky" approach in the  paper.

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Recommend approval

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AC/SP&ES